

## Civil Engineering Criteria

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### Introduction

The project consists of the design and construction of two parking areas for sedans, minivans, and full size vans in Veteran Affairs Southern Nevada Healthcare System, 6900 North Pecos Road, North Las Vegas, NV 89086.

### Codes & Standards

- Master Construction Specifications, PG-18-1.
- Design Manuals, PG-18-10.
- Design Submission Instructions, PG-18-15 Volume C.
- International Building Code (IBC), current edition.
- American Society of Testing and Materials (ASTM).

### Civil Design Considerations

#### Demolition

Demolition activities will include the demolition of the existing concrete curbs, asphalt, trees and removal of landscape rocks.

#### Grading and Drainage

##### Grading

Proposed grades will providing an efficient drainage pattern that directs runoff to existing storm drainage conveyance systems (ditch/swale south of the private ring road). Grading will adhere to the Geotechnical report. Final slopes will adhere to the jurisdictional standards. The VA elected not to consider ADA requirements for the design of this project.

250 linear feet of new retaining wall is proposed along the north side of the west parking lot. The proposed retaining wall will retain approximately 5 feet of soil.

## Site Drainage

Storm water run-off will be conveyed via surface drainage to the existing ditch/swale south of the private ring road. Storm drain design for the new parking will be designed for a 25-yr storm event and per the jurisdictional standards.

The VA constructed a detention basin located in the southwest corner of the VA campus that will provide storm water runoff treatment for the entire VA campus. KPFF was informed by the VA that the existing detention basin has available capacity to treat storm water runoff for future project within the VA campus. Therefore, no storm water runoff treatment was implemented for this project.

## Water System

Water design is not part of this scope.

## Sanitary Sewer System

Sewer design is not part of this scope.

## Geotechnical Report

The Geotechnical Evaluation for the Veterans Affairs Medical Center was provided to KPFF to use for the utility design prep for the Fisher House project.

## Materials

Concrete Pavement

Portland Cement: ASTM C 150, Type V,

4,500 psi compressive strength. Pavement section design to be based on geotechnical engineer's recommendations.

Asphaltic Concrete Pavement

Asphalt to conform to Section 401 of the Clark County Uniform SSPWC. Pavement section design to be based on geotechnical engineer's recommendations.